Bellcore would recommend that the Commission not inadvertently in this proceeding alter the balance between generic requirements and standards, or discourage the development and use of generic requirements. Generic requirements address levels of detail and specific circumstances that are not the subject of general standards, and that simply cannot be the result of the multi-vendor compromises that underlie most standards.[32] Similarly, Bellcore urges the Commission not to excessively regulate or hobble technical analysis (or, more broadly, certification), by limiting what it can do to meet the needs of those that seek Bellcore's services.

B. Research Is Not Collaboration (paras. 11 and 27).

Paragraph 11 of the Notice proposes to interpret the statute as: (1) prohibiting close collaborations between a BOC or an RHC and the manufacturing affiliate of another unaffiliated BOC or RHC, or between the manufacturing affiliates of two unaffiliated BOCs or RHCs, and (2) permitting collaborations between a BOC-affiliated manufacturer and a non-BOC affiliated manufacturer. In Bellcore's view, applied research if not "collaboration." Bellcore is concerned that in discussing or interpreting the statutory prohibition, that the Commission not prevent two or more BOCs and/or their affiliated manufacturers from contracting with the same research organization, be it Bellcore or another research organization.

Bellcore since 1984 has provided valuable applied research to multiple owners and clients, who have received the benefits of cost-sharing, and we anticipate continuing to offer such services after the sale. Funding of research by multiple entities is by no means unique to

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[32] For example, a generic requirement might address details of interfacing with particular models of switches, from particular manufacturers, that are deployed in exchange facilities. A general standard in this area would have to accommodate multiple models of switches from multiple manufacturers, the interfaces of which may not be compatible or similar.

Bellcore. Direct analogues exist in other fields, *e.g.*, the cable television industry (Cablelabs), the electric power industry (Electric Power Research Institute), the gas industry (American Gas Association). Comparable economies are also achieved when multiple participants in an industry jointly sponsor research in research ventures[33] and in universities. Indeed, Congress has actively encouraged achievement of such economies by enacting the National Cooperative Research Act, 15 U.S.C.

§§4301-4305. We urge the Commission to confirm that joint funding alone, by two or more BOCs and/or their affiliated manufacturers, of research by another entity, will not be deemed a prohibited form of close collaboration or manufacturing.

As a related matter, in paragraph 27 a tension is posited between statutory provisions authorizing close collaboration and provisions requiring disclosure of information. As noted, Bellcore believes that joint funding of research is not collaboration or "close collaboration." We are concerned that in addressing the tension identified in this paragraph, the Commission might inadvertently limit the flow of research-related information and thereby undermine the effectiveness of research. We urge the Commission to be sensitive to this concern and not to do so.

C. Royalties (para. 12).

The Notice recognizes the importance of promoting innovation, but expresses some concern that royalty revenues may influence BOCs and other carriers that interoperate with them

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[33] Examples of this that relate to telecommunications include the Microelectronic and Computer Technology Corporation ("MCC"), 54 Fed.Reg. 49123 (1989); the Semiconductor Research Corporation ("Sematech"), 50 Fed.Reg. 2633 (1985); the Software Productivity Consortium, *Id.*; and the Advanced Television Test Center, Inc., 54 Fed.Reg. 46660 (1989).

improperly to favor royalty-bearing equipment. The Notice suggests that royalties keyed to units of sales most directly raises this problem, and it seeks comment on ways to protect against potential anticompetitive abuses. Bellcore urges the Commission not to limit BOCs' incentives to fund research and innovation – at Bellcore and elsewhere – by limiting the ability of a BOC to receive benefits from such work through per-unit royalties from any resulting patents to which the BOC may receive rights (if its contract so provides). In Bellcore's view, doing so would be unnecessary, counter-productive, and inconsistent with the language of Section 273(b)(2)(B) authorizing the entering of royalty agreements.[34]

D. Carriers' Network Disclosure (paras. 13-15, 22 and 28).

As noted previously,[35] Bellcore's information may be involved in discharge by BOCs of their responsibilities under Section 273. but it will be doing so as a provider of services to one or more BOCs, and not as an entity that is itself responsible for this task under Section 273. Upon sale, Bellcore in its own behalf will be subject only to the pertinent subsection Section 273(d) provisions.

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[34] Per-unit royalties are the almost universal method employed for licensing of patents. They permit licensors to recover costs of innovation (and perhaps make a profit) while not requiring licensees to make major payments all at once. This can be particularly important to licensees that may be start-up operations formed to utilize and exploit a new technology. At the same time, they enable the value of the license to be determined by the market, rather than by licensors and licensees in a complete vacuum up front. Moreover, in the vigorously competitive service and equipment markets that are promoted by the Telecommunications Act of 1996, an anticompetitive strategy of procuring inefficient equipment because royalties could be gained on such equipment – the concern expressed in the Notice – is doomed to failure in the marketplace and should not be addressed by unnecessary regulation that limits market flexibility. For this very reason, it appears that Congress wisely placed no express limitations on the forms of royalty compensation, in an effort to encourage continued promotion of innovation by BOCs.

[35] *Supra,* at pp. 6-7.

E. Premature Disclosure of Information (para. 19).

The Notice observes that premature disclosure of information can send false signals to a market, especially if there is an incorrect preannouncement of future product capabilities or availability. It seeks comment on: (1) whether early or late disclosure has a greater potential to damage market participants; (2) the extent to which early disclosure of planned products, technical specifications, or protocols could stifle development of competing products, technical specifications or protocols; (3) whether any provision of the Communications Act fully addresses potential problems associated with early disclosure; and (4) whether *bona fide* equipment trials should be exempted from the disclosure obligations (similarly to the trials exemption from carriers' Section 251(c)(5) network disclosure). Bellcore responds to points 1, 2 and 4.

Depending on the factual circumstances, disclosure that is too early or too late can adversely affect market participants, and a general response to the first point is not possible. In most cases, a factual inquiry will be required. It appears that the circumstances that concern the Commission relate not to the timing of the disclosures, but rather to disclosures that are intentionally misleading, and it may prove useful for the Commission to focus on that.

As we noted previously,[36] a regulation requiring excessive disclosure of information can have the effect of stifling innovation. In its second point, the Commission raises a related timing concern, that premature disclosure of information might also stifle innovation. In both cases, if it is possible for entities to "free ride" on the work of others, they will have a natural tendency to do so and not innovate themselves, leading to a reduction in overall innovation. This is an

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[36] *Supra,* at pp. 11-12.

immediate effect; a longer term effect is that parties will have little incentive to fund innovation as the fruits of such innovation will be shared with competitors.

On the fourth point, we urge the Commission to exempt equipment and service trials from the disclosure requirements here, as it did in its treatment of Section 251(c)(5),[37] both to avoid the sending of misleading signals to the marketplace and to promote experimentation and innovation.

F. Dissemination of Information (paras. 20-21).

The Commission proposes that BOCs discharge their disclosure obligations by maintaining information available for inspection by the public on request, and that one way of doing so would be to place information in publicly accessible World Wide Web sites, or otherwise available using Internet protocols (*e.g.* FTP, Gopher, e-mail), using portable display protocols (*e.g.*, ASCII, the Adobe "PDF" portable document format). Since Bellcore documents (existing and future) might be involved in such disclosure, Bellcore has an interest in this.

We urge the Commission not to equate publicly accessible with unrestricted accessibility. Many Bellcore documents contain valuable trade secret information. Such documents can be disseminated, if at all, only pursuant to appropriate non-disclosure agreements if that trade secret status is to be retained. Furthermore, it may be inappropriate to disseminate sensitive documents electronically, if there is a risk that their secrecy may be compromised. As a related matter, we urge the Communications not to equate publicly accessible with accessibility at no charge. Much World Wide Web (and Internet) content can today be accessed without payment, and there is a tendency to think that this is normally the case and will continue.

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[37] Second Report, *supra* n. 26, at 111.

Bellcore's various technical references are valuable intellectual property, created at considerable expense by their funders. Many Bellcore documents are today available to the public for a fee, and documents might in the future be made available electronically for a fee (assuming that the intellectual property concerns related to electronic distribution can be adequately addressed). The rules should not foreclose this.[38]

At the same time, electronic distribution should not automatically be required. Electronic dissemination of some documents, for example Bellcore's multi-volume *Operator Services Systems Generic Requirements* ("OSSGR") (4 volumes, 25 documents), *Operations Technology Generic Requirements* ("OTGR") (14 volumes, 45 documents) and the family of *Common Channel Signaling Network Interface Specifications* ("CCSNIS") (2 volumes, 14 documents) documents, would be inappropriate or inefficient (again, assuming that the intellectual property and compensation concerns are addressed). For such documents to be disseminated electronically, appropriate search, index and access capabilities would be needed. Effective tools of this nature may not be available, or may be incompatible with the documents involved.

Finally, for those documents that are appropriately disseminated electronically, the Commission should not require conversion of existing documents to portable formats if the documents can be read using readily available programs or readers, or using a program available from the provider of the electronic document. Such conversion is costly and unnecessary. Bellcore, alike with other entities, maintains the electronic forms of its documents in a wide

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[38] Bellcore's current practice is consistent with this. Information about generic requirements documents is generally disseminated at little or no charge, but not the generic requirements documents themselves.

variety of formats, from which it can generate screen-viewable versions and hard copy printouts.[39]

G. Definitions of Standards (para. 34).

Paragraph 34 of the Notice seeks comment on how "standards" should be defined to ensure that standards processes are open and accessible to the public, and how to distinguish among different activities that might be characterized as standards-setting under Section 273(d). The Notice suggests establishing distinctions based on the type of entity creating the standard, *i.e.*, distinguishing standards created by an accredited standards development organization and "de facto" standards created otherwise, with the "de facto" category potentially broken into three subcategories: (1) created by a group of parties to promote interoperability, (2) imposed on an industry by a dominant entity or group, or (3) adopted independently without explicit coordination by entities that independently select the same or similar standards.

The foregoing distinctions are largely irrelevant to the statute. Section 273(d), in language that treats standards and generic requirements alike, makes only one distinction that is based on the source of the "industry-wide"[40] standards or generic requirements for

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[39] Many current Bellcore documents are in Microsoft Word, Adobe Framemaker, Adobe PDF and hypertext markup language (HTML) format (older Bellcore documents are in Unix 'troff' format). Word and Framemaker software are both readily available for multiple computer platforms; there are free readers available for Word and PDF documents; and readily-available web browsers can be used to view HTML documents. Other Bellcore documents are in the format of the applications programs that generated them, for example, spreadsheet and database programs, and they can be read directly by, or imported into for reading, readily available spreadsheet and database programs. (Word is a trademark of Microsoft Corporation; Framemaker is a trademark of Adobe Systems, Inc.; and Unix is a registered trademark licensed exclusively through X/Open Company, Ltd.)

[40] Industry-wide is defined as "activities funded by or performed on behalf of local exchange carriers for use in providing wireline telephone exchange service whose combined total of deployed access lines in the United States constitutes at least 30 percent of all access lines

telecommunications equipment, customer premises equipment and software integral thereto: it differentiates between those adopted by an accredited standards development organization and one that is not accredited. All standards and generic requirements adopted by non-accredited standards development organizations that fall under the definition of "industry-wide" are covered, regardless of whether the entity creating them is Bellcore, another provider of research or consulting services, an industry forum, an *ad hoc* industry group, or permanent one. As we noted in the introduction to these comments, Bellcore is one of many entities that develop such standards and generic requirements and that is able to do so. Bellcore should be treated the same as these others – because it is appropriate to do so, and because the statute so requires..

Moreover, the reference in the Notice to standards adopted by accredited standards organizations and "de facto" standards suggests that the Commission might consider Bellcore's generic requirements as falling within the second of the Notice's *de facto* categories, "imposed on an industry by a dominant entity or group" (since the other two categories do not appear to encompass generic requirements). This would be completely incorrect. Bellcore has no ability to "impose" anything on the industry currently, and it will have no ability to do so when it is sold. Service providers, manufacturers and suppliers are free to adopt, utilize, augment, deviate from, or reject Bellcore's generic requirements in whole or in part, and they do.

Rather, there is a fourth category of joint activities involving standards and generic requirements, that more accurately represents activities of Bellcore (and other entities), namely, standards created by an entity that brings together a group of funders that are seeking standards to

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deployed by telecommunications carriers in the United States as of the date of enactment of the Telecommunications Act of 1996." Section 273(d)(8)(C). "Industry-wide" would therefore include development of standards for, or used by, three or more current-size Regional Companies (or two Regional Companies and GTE).

promote their common needs, typically for interoperability. The entity developing such standards does not "impose" standards on the funders; the funders are seeking such standards and, after the standards are developed, they then determine individually whether to voluntarily implement them.

H. Manufacturing, More than One Bell Operating Company Limitation (para. 37).

In addressing the Section 273(d)(1)(B) prohibition on manufacturing by Bellcore so long as it is affiliated with more than one otherwise unaffiliated Bell Operating Company or successor or assign, the Notice at paragraph 37 recognizes that many BOCs are owned or controlled by a single Regional Company. Accordingly, the Notice proposes to apply the more than one BOC constraint to ownership: by two Regional Companies; by one Regional Company and one Bell Operating Company owned or controlled by another Regional Company; and by two BOCs not under the ownership or control of the same Regional Company. Bellcore believes that this is a correct conclusion.

I. Protection of Proprietary Information, Applicability (paras. 40-41).

In paragraph 40, the Notice seeks comment on the applicability of the Section 273(d)(2) requirements that proprietary information be protected. As the Commission properly notes, Section 273(d)(2) applies to "any entity that establishes standards," without including the limitations of Section 273(d)(4),[41] and the omission of such words of limitation – in the same statutory enactment, and even in the same statutory subsection – must be interpreted as intentional. Thus, the Commission is correct in its conclusion that Section 273(d)(2) applies to

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[41] *I.e.*, applicability to non-accredited standards development organizations, and development of industry-wide standards.

establishment of telecommunications standards or requirements by any entity, whether it is an accredited or non-accredited standards development organization, and whether or not such standards or requirements are industry-wide.

Similarly, the "any entity" language of the statute reaches associations such as the ATM Forum and *ad hoc* and permanent industry groups, to the extent that such entities develop telecommunications standards or generic requirements within the meaning of Section 273. Unlike other portions of the statute, Section 273(d)(2) does not differentiate types of entities in any manner, and there is no reason or basis for the Commission to seek to do so.

However, it is unclear that the statute reaches, or was intended to reach, ISO 9000 certification. ISO 9000 certification does not address the substance of an activity, such as manufacturing or software development, but rather it addresses <u>how</u> that activity is performed (such as how such manufacturing or software development is documented, how quality is measured and controlled, how changes are controlled, etc.). The International Standards Organization (ISO) itself characterizes ISO 9000 as a "management standard." Since the ISO 9000 requirements affect manufacturing and software development, and are standards or requirements for production of such equipment, it would appear that determining compliance with such requirements is a species of "certification" under Section 273(d).

J. Manufacturing.

1. Separate Affiliate (para. 43)

Section 273(d)(3) requires separation of manufacturing and certification activities, but it is somewhat unclear as to which activity is to be placed in the separate affiliate.[42] Given this ambiguity, Bellcore believes that placing either certification or manufacturing in a separate affiliate that conforms to the separation requirements of Section 273(d)(3)(B)(i)-(iii) would satisfy the statute. The purposes of the separate affiliate requirement are to limit opportunities for unfair discrimination, by those who certify, in favor of the certifying entity's own products, and to limit information flow, purposes that are promoted in either case. We ask that Bellcore retain the discretion to organize its activities in a manner that maximizes efficiency while still satisfying the statutory separation requirement, no differently that other commercial suppliers of comparable services.

2. Class (para. 45)

Section 273(d)(3)(A) requires structural separation if a certifying entity wishes to manufacture telecommunications equipment or customer premises equipment in the same "class" in which it has certified equipment during the previous 18 months. The Notice seeks comment on how such classes might be defined. Because there is no standardized classification scheme

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[42] Section 273(D)(3)(A) states that "any entity which certifies telecommunications equipment or customer premises equipment manufactured by an unaffiliated entity shall only manufacture a particular class of telecommunications or customer premises equipment for which it is undertaking or has undertaken, during the previous 18 months, certification activity for such class of equipment through a separate affiliate." The ambiguity arises from the final "through a separate affiliate," which might be interpreted as modifying "shall only manufacture a particular class of telecommunications or customer premises equipment" or as modifying "certification activity for such class of equipment."

for types of telecommunications equipment, Bellcore has constructed one specially for the Commission's use.

The following classifications were drawn so as to treat together in each class, for purposes of applying Section 273(d)(3)(A) equipments and systems that are: (a) generally recognized by the industry as in the same category, (b) usually substitutes for one another, and (c) generally treated together in industry forums, standards bodies, and generic requirements:

EQUIPMENT CLASSES

- Billing, customer data systems (hardware)
- Signaling systems, analog, e.g. loop, multifrequency
- Signaling systems, ISDN
- Signaling systems, common channel
- Signaling systems, common channel Signaling Switching Point
- Signaling systems, common channel Signaling Transfer Point
- Transmission systems, loop, wireline
- Transmission systems, loop, wireless
- Transmission systems, trunk, wireline, metallic
- Transmission systems, trunk, wireline, coaxial
- Transmission systems, trunk, wireline, fiber optics
- Transmission systems, trunk, wireless
- Satellite systems, space segment
- Satellite systems, earth stations
- Transmission media, metallic
- Transmission media, coaxial
- Transmission media, fiber optics
- Switching systems, analog
- Switching systems, digital, circuit
- Switching systems, digital, variable length packet (e.g., X.25 and TCP/IP)
- Switching systems, digital, fixed length packet (e.g., ATM)
- Standalone test sets
- Operations Support Systems (hardware), trunk/loop/facility
- Operations Support Systems (hardware), switch
- Operations Support Systems (hardware), signaling
- Intelligent Network Systems, computer (hardware)
- Synchronization systems
- Common Systems, Cross-Connects
- Common Systems, power

- Common Systems, Network Equipment-building systems
- (User) Terminal Equipment and Premises Wiring, multi-line terminal
- (User) Terminal Equipment and Premises Wiring, residential terminal, voice
- (User) Terminal Equipment and Premises Wiring, residential terminal, data
- (User) Terminal Equipment and Premises Wiring, residential terminal, facsimile
- (User) Terminal Equipment and Premises Wiring, residential terminal, video

3. 18 Month Period (para. 46)

The Notice seeks comment on the interpretation of the 18 month phrase in Section 273(d)(3)(A). Bellcore believes that an appropriate interpretation is that an entity that seeks to manufacture equipment in a class should ask whether it has certified equipment in the same class during the previous 18 months. If the answer is "yes," then thereafter it must be manufactured in an organization that is separate from the certifying organization (one of those two organizations, the certifying one or the manufacturing one, must be a separate affiliate). If the answer is "no," manufacturing may begin with no requirement of separation, until the entity begins to certify equipment in that class, at which time separation will thereafter be required. Separation will continue until the requirement sunsets under Section 273(d)(6), or certification of that class of equipment ceases for 18 months, whichever comes first.

A second proposed interpretation of the Notice, that an entity that has manufactured and certified equipment in the same class within 18 months prior to the effective date of the 1996 Act may continue to do so without creating a separate affiliate, is inconsistent with the language of the statute, which requires separation of manufacturing and certification if an entity "is undertaking or has undertaken, during the previous 18 months, certification activity for such class of equipment." Congress obviously intended to address potential discrimination and information flow issues raised if an entity certifies other manufacturers' equipment that is similar

to equipment manufactured by the certifying entity.[43] Such concerns are not vitiated if an entity in that position happened to have performed manufacturing and certification in the same entity prior to enactment of the statute, and there is no suggestion in the statute or its legislative history that Congress intended such a result.

K. Discrimination (paras. 48 and 57).

Section 273(d)(3)(C) states that the certification entity shall not "discriminate in favor of its manufacturing affiliate in the establishment of standards, generic requirements or product certification," while Section 273(d)(4)(D) states that a non-accredited standards development organization shall not "preferentially treat its own telecommunications equipment or customer premises equipment or that or its affiliate, over that of any other entity in establishing and publishing industry-wide standards or industry-wide generic requirements for, and in certification of telecommunications equipment and customer premises equipment." The Notice addresses the former at paragraph 48 and the latter at paragraph 57.

The two provisions are substantially similar. They address the same subject matter and should be interpreted alike. We urge the Commission to interpret both provisions as barring pernicious discrimination (*i.e.*, where the purpose or effect of disparate treatment by an entity of another's equipment and its own equipment is to confer an unfair competitive advantage on its own equipment), and not all distinctions in treatment.[44] It may be perfectly appropriate, for example, in a competitively-neutral fashion to offer quantity discounts to large purchasers of

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[43] *See*, Section 273(d)(3)(C).

[44] The Notice invites comment on a "no discrimination" interpretation at paragraph 48.

services, or to develop generic requirements differently in some circumstances than in others if those funding the standards development so agree.

L. Standards Setting Organizations (paras. 50-54).

1. Paragraph 50 - Ownership, Circumvention, Control

Paragraph 50 of the Notice seeks comment on several issues. First, the Commission asks whether sale of Bellcore to an entity unaffiliated with a Bell Operating Company would affect applicability of Section 273(d)(4). The simple answer is that it would not. The section by its terms applies to "Any entity that is not an accredited standards development organization and that establishes industry-wide standards * * * or that certifies telecommunications equipment or customer premises equipment manufactured by an unaffiliated entity."

Congress expressed a concern about standards or generic requirements funded by or performed on behalf of local exchange carriers providing wireline exchange service, who together have the potential market impact signified by the size threshold specified in the Act, at least 30 percent of exchange access lines deployed by telecommunications carriers in the United States as of the date of enactment of the Telecommunications Act of 1996. Likewise, Congress expressed a concern about potential conflicts of interest by certifiers. Such concerns do not depend on the entity formulating the standards or performing certification; they depend on the activity, not ownership of the entity.[45]

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[45] Bellcore currently performs these activities and it anticipates doing so after a sale. Others also do so. Non-accredited standards development organizations in addition to Bellcore that are encompassed include forums such as the ATM Forum and Smart Card Forum, communities-of-interest user groups such as the Auto Industry Action Group and the Internet Engineering Task Force. Manufacturers may also be viewed as establishing industry-wide standards.

Second, paragraph 50 asks whether "RHCs, Bellcore or other carriers" might circumvent the requirements of Section 273(d)(4) by designating standards or generic requirements as internal, non industry-wide, optional, or company-specific specifications. We note at the outset that Bellcore is not a carrier now, and certainly will not be one after its sale. The designations listed in the Notice could, if applied appropriately, identify circumstances in which the statutory plan does not apply.

Congress chose, for example, to apply Section 273(d)(4) only to "industry-wide" standards, and not to all standards. If a standard is not to be industry-wide, there is nothing wrong with so designating it, and treating it as outside an inapplicable statutory plan. Client-specific specifications, funded by or prepared for that carrier alone, and possibly embodying a single carrier's unique and proprietary information or plans, and standards and generic requirements developed by a non-accredited standards development organization for use in less than the 30 percent statutory threshold of access lines of the "industry-wide" definition, are simply not within the scope of Section 273(d)(4).[46]

It is troubling that the Commission, by expressly mentioning Bellcore, appears to assume that Bellcore would seek to evade the statutory requirement by applying an inapposite label. If the Commission is to address this matter at all, it should condemn misapplication of such labels. As a related matter, a standards development effort may change over time. If a standards development effort begins as non industry-wide and other carriers later join in the effort so that the 30 percent trigger is reached, Section 273(d)(4) should apply only after such other carriers have joined, to work undertaken thereafter.

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[46] The Act has separate provisions to ensure that BOCs' procurement activities are carried out properly, *e.g.*, Section 273(e).

Third, comment is invited on whether standards developed by large entities or alliances are encompassed if those entities or alliances control at least 30 percent of the deployed access lines, or if they control fewer than 30 percent of such lines. We submit that "control" is irrelevant. What is relevant here is whether the standard development activity is funded by or performed on behalf of local exchange carriers for use in providing wireline telephone exchange service whose combined total of deployed access lines in the United States constitutes at least 30 percent of the access lines deployed on the date of enactment of the Act.

2. Paragraph 51 - Modification

Paragraph 51 seeks comment on what changes should constitute a "substantial modification." Rather than formulating a single definition, we support the Commssion's proposal to identify factors such as a material impact on network reliability, performance, security and interoperability. An additional factor that might be added is whether a change would materially affect compliance of a product, as a result of such change.

3. Paragraphs 52-53 - Information Dissemination

Paragraphs 52 and 53 seek comment on the giving of public notice under Section 273(d)(4)(A)(i). We agree with the Commission that a variety of means exist for giving notice, both in hard copy form (for example, the *Bellcore Digest*) and electronically (for example, through Bellcore's World Wide Web site). We would suggest that the Commission not key its rules to a specific set of services or technologies, and leave dissemination to be determined by each non-accredited standards development organization, subject to the overall statutory requirement that notice be given. It may be appropriate today to use a Web site, but the

technology may change tomorrow and some other alternative may then be more desirable. Excessive specificity in Commission rules will make it difficult to improve dissemination of information as new means become available.

We also wish to emphasize that Bellcore will be providing information on the availability of standards-related documents, and not their content. Standards-related documentation is valuable, and Bellcore – alike with other organizations – will want to recover development costs (including profit). Similarly, just as Bellcore recovers costs of providing the *Bellcore Digest* through subscription fees, Bellcore may wish to do so in the future and/or recover costs associated with electronic distribution of information. There is no requirement in the statute that information be disseminated at no charge, and we urge the Commission not to seek to adopt one.

4. Paragraph 54 - Funding Party

Bellcore strongly supports the Commission's tentative decision to apply to Section 273(d)(4)(A) the decisions reached in its *Dispute Resolution Regarding Equipment Standards* order[47] that a "funding party" includes only parties that provide actual funding to support the standards-setting process, and not parties that merely post a performance bond or provide in-kind support.

M. Certification Activities (para. 55).

Paragraph 55 seeks comment on Section 273(d)(4)(B), setting forth procedures that an entity must follow when engaging in product certification for telecommunications equipment or customer premises equipment manufactured by unaffiliated entities.

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[47] 11 FCC Rcd. at 12969.

First, the techniques that Bellcore and other certifying entities employ when analyzing and testing equipment vary. In some cases, well-known textbook techniques are employed. However, in other cases, and particularly where complex equipment such as switches or cutting-edge technologies are involved, the certifying entity may have developed, at considerable expense, valuable and proprietary techniques. Such techniques cannot be disclosed in an unrestricted manner without destroying their value. We urge the Commission to interpret "published" as used in Section 273(d)(4)(B) as meaning "fixed in print," and not as implying that it is publicly available without restriction. Bellcore would be willing, pursuant to a suitable non-disclosure agreement, to provide the subject of a given certification activity access to the written expression of the techniques employed for that certification activity, but it would not be willing to provide such access to its competitors to enable them to compete with Bellcore's certification activity.

Second, "auditable" need not be defined in terms of accounting standards on auditability. The engineering concept of reproducibility is sufficient, *i.e.*, the certification activity should be performed and documented so that one skilled in the art can reproduce the analyses, tests and results.

Third, the concept of "industry-accepted testing methods" should be defined by the recipients of the results of the tests. They have every incentive for the methods to be reasonable, while still meeting their needs. If there is an applicable generic requirement or standard, Bellcore ordinarily will use it (unless directed otherwise by the funder).

And fourth, the importance of two phrases in Section 273(d)(4)(B)(iii), "available" preceding "industry-accepted testing methods and standards," and "unless otherwise agreed upon

by the parties funding and performing such activity" cannot be stressed enough. The first, "available," recognizes that in many cases involving complex equipment or new technology, there simply are no industry-accepted testing methods and standards. The second, "unless otherwise agreed upon by the parties funding and performing such activity," acknowledges that the funders determine what services are to be provided them by a certifying entity. If a client funds Bellcore to certify a manufacturer's equipment, that funding client and Bellcore can agree to utilize whatever testing methods and standards they wish to apply. The manufacturer has no role in this decision, unless it is paying for the certification.

N. Monopolization (para. 56).

Comment is sought on whether the Commission should identify specific acts that would constitute *per se* violations of Section 274(d)(4)(C), and if so, what showings would be required to establish a *prima facie* violation of this provision, or whether other approaches might be used. Comment is also sought on what penalties should be assessed for violations.

We wish to emphasize that Bellcore has not monopolized or attempted to monopolize markets for standards development or certification, and it will not do so in the future. The provisions of Section 274(d)(4)(C) are simply a subset of the Sherman Act, which has, for more than a century, made it a crime to monopolize or attempt to monopolize. Bellcore has followed the law in the past, and intends to continue to do so.

Bellcore would recommend that the Commission not seek to establish *per se* violation categories for this Sherman Act-like provision. To the extent that multiple-firm conduct will be involved, the *per se* categories that the courts have established under the Sherman Act are sufficient (*e.g.*, agreements to fix price, divide markets, joint boycotts, etc.). To the extent that

single-firm monopolization might be involved, the issues are so complex and fact-intensive as to make a *per se* analysis inapplicable,[48] and the Commission will need to apply the principles evolved in antitrust proceedings over the years to the particular activities before it. Rather, the Commission can impose forfeitures for violations of this section of the Act, no differently than for violations of other sections, and it can bring actions which it believes may violate the antitrust laws to the attention of the Department of Justice.[49]

O. ANSI IPR Policy (para. 57).

Paragraph 57 of the Notice appears to conclude that the policy of the American National Standard Institute ("ANSI") on treatment of intellectual property rights ("IPR") is to require participants to agree to license such rights on reasonable terms before the technology involved is incorporated in a standard. It is correct that ANSI encourages early disclosure (as does Bellcore in its development of generic requirements), and upon such disclosure a licensing commitment from the patent holder. However, the ANSI patent policy does not require this before a standard can be completed, since, in many cases it is not known when a standard is being developed whether essential IPR is involved.

Participants in standards bodies cannot be expected to know the contents of their companies' entire patent portfolios, nor can they be expected to make the legal/technical determinations that often are required when deciding whether a given patent "reads on"

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[48] *See, e.g.*, U.S. v. Aluminum Co. of America, 148 F.2d 416, 430 (2d Cir. 1945) (a monopoly obtained by virtue of "superior skill, foresight and industry" is not condemned).

[49] This would be consistent with the Commission's treatment for decades of its special antitrust enforcement authority under Sections 313 and 314 of the Communications Act of 1934, and under Section 11 of the Clayton Act (as enacted in Section 602(d) of the Communications Act of 1934).

technology involved in a standard. If the participants, or their companies, were expected to identify all such IPR prior to adoption of a standard, the standards development process would of necessity include a patent search phase – thereby delaying adoption of standards, and increasing the cost of standards development. ANSI has wisely not embarked on this course, and the Commission should similarly not do so for standards and generic requirements of non-accredited standards development organizations.

P. Sunset (paras. 59-61).

As we have noted, a variety of entities engage in standards development and technical analysis activities similar to those performed by Bellcore, and such activities are subject to Section 273(d). Section 273(d)(6) specifies that the requirements of Section 273(d)(3)-(4) terminate for a particular relevant activity when the Commission determines that there are alternative sources of industry-wide standards, industry-wide generic requirements or product certification for a particular class of telecommunications equipment or customer premises equipment available in the United States. Alternative sources are deemed to exist when such sources provide commercially viable alternatives that are providing such services to customers. And, the Commission is to act on an application for such a determination within 90 days of receipt of such application.

In the case of standards and generic requirements, the statute should be interpreted as requiring sunset if another entity is capable of developing comparable standards or generic requirements addressing the same subject matter as Bellcore's standards and generic requirements. If Bellcore is already developing a particular industry-wide standard or generic requirement, it should not be required that another entity is also developing that same standard or

generic requirement. The Commission should not interpret the statute as requiring that Bellcore have lost the business before it need no longer comply with limitations on how it conducts development of standards and generic requirements.

It should be sufficient that another entity is engaged in analogous work, and that it has the capability of doing what Bellcore is doing. In the case of certification, other entities are more likely already to be performing certification of the same or similar telecommunications equipment and customer premises equipment, but here too, it should be sufficient that another entity is engaged in analogous work and has the capability of doing what Bellcore is doing.

At paragraph 61, the Notice proposes to lift the requirements that Sections 273(d)(3)-(4) be complied with by entities performing certification of compliance with Parts 15 and 68 of the Commission's rules. While it may be appropriate for the Commission ultimately to reach the conclusion that commercially viable alternatives exist for such certification activities, the statutory plan must be complied with. Under that plan, an entity that seeks such sunsetting must file an application seeking a determination that there are alternative sources of product certification for each class of telecommunications equipment or customer premises equipment involved. Furthermore, such a determination would affect all entities that certify equipment in each such class, including Bellcore.

IV. CONCLUSION

In the foregoing comments, Bellcore responds in detail to many issues of the Notice that pertain to its activities. These detailed comments will not be repeated here. Rather, we wish to emphasize several important themes the underlie all of our comments.

First, as the Notice acknowledges, the BOCs are in the process of selling Bellcore. After the sale, Bellcore will be no different than other independently-owned providers of professional services and other independently-owned sources of the standards-related and certification services at issue in this proceeding, and therefore should not be treated differently than these other sources in terms of the application of Section 273(d) to its activities. That is what Section 273(d) requires, and that is what is appropriate.

Second, Bellcore's services have been valuable to its owners and clients in the past, and to the industry generally, a view that has been recognized by the Commission. Bellcore's generic requirements and certification activities have promoted competition and multi-vendor supply of products and services, while retaining needed interoperability and compatibility. Bellcore currently plans to provide comparable services in the future, but Bellcore's ability to provide them will depend on the attractiveness of Bellcore's offerings, and this will depend, in large measure, on it not being artificially hobbled through excessive or overly intrusive regulation, or treated differently than its competitors.

Third, in Section 273 Congress acknowledged the potential of a Bellcore sale, and the change in Bellcore's status that would occur upon sale, by phrasing limited and precisely targeted provisions addressing certain standards development and certification activities of a sold Bellcore – and of other entities engaged in similar activities. The only provisions in Section 273 that are unique to Bellcore are in Section 273(d)(1). Other provisions, addressing proprietary information, certification by entities that manufacture, and development of standards and generic requirements by non-accredited standards development organizations, each address "any" entity performing such activities. There is no reason or statutory basis for singling Bellcore out, or for seeking to impose additional regulation on Bellcore beyond those limited provisions.

Fourth, while information is variously required to be made available, valuable proprietary information must be protected to preserve its value, and to preserve incentives to fund and engage in future innovation. The Commission should resist attempts to free ride on innovation and development by others that may be made in the name of "full disclosure" and the like.

And finally, it is inappropriate and unnecessary to broadly inquire into the pending sale to SAIC for two reasons: (1) as noted the statute anticipates a Bellcore sale; and (2) the Bellcore sale has no relevance to the matters at issue in this Section 273 proceeding (other than the manufacturing limitation that applies to Bellcore until it is sold), because those matters depend on the activities involved, not the identity or ownership of the entity performing such activities.

Respectfully submitted,

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